Some Suggestions with Regard to the Insanities of Females, *Am. Jour. of Obstetrics*, April; MACDONALD, General Paresis, *Am. Jour. of Insanity*, April; ACH. FOVILLE *fils*. The Relations between the Troubles of Motility in General Paralysis and Cortical Lesions in the Fronto-Parietal Convolutions, *Annales Méd. Psych.* January; DAGONET, Moral Insanity and Intellectual Insanity, General Considerations and Classification, *Ibid;* BUZZARD, Sciatica, *Practitioner*, February; DOWSE, Diphtheritic Paralysis, *Ibid*, March; MACGREGOR, A New Form of Paralytic Disease, associated with the presence of a New Species of Liver Parasite, *Glasgow Med. Journal*, January; DELASIAUVE, Classification of Mental Diseases on the Double Basis of Psychology and Clinical Observation, *Le Progres Médical*, March 3.

c.—THERAPEUTICS OF THE NERVOUS SYSTEM AND MIND.

BROMIDE OF POTASSIUM.—Krosz, *Arch. f. exp. Path. u. Pharm.* (Abst. in *Revue des. Sci. Méd.*)

This inaugural dissertation begins with a critical review of previous memoirs. Then Krosz analyzes the symptoms experienced by himself and many of his friends, after the administration of gramme doses of bromide of potassium. It is a new confirmation of already known facts. In effect, he observes a sensation of warmth, and of weight on the stomach, with generally an abundant intestinal flux, cephalalgia, anæsthesia of the pharynx, with decrease of the salivary secretion, a very plain enfeeblement of the intellectual faculties, and finally a slight lowering of the temperature, and slowing of the pulse.

Never any diplopia nor myopia. Occasionally eruptions of acne and of erythema nodosa.

Experiments upon animals confirm the facts already known; it is a sedative, and hypnotic paralysis of the heart that appears to be the cause of death.

Is this action due to the bromine or to the potassium? To solve this problem, Krosz administered to a number of healthy adults, successively, thirteen grammes of chloride of potassium, and seventeen grammes of bromide of sodium. In these doses the bromide of sodium contained as much bromide, and the chloride of potassium as much potassium as the previously employed dose of bromide of potassium. These experiments prove that bromide of potassium combines the action of bromide of sodium and chloride of potassium. They also permit us to determine the part played by each of the elements of the potassic salt.

It is the metal that produces the paralysis of the cardiac muscle, the retardation of the respiration, and the reduction of temperature, the paralysis of the nerves and muscles. To the metalloid should be attributed the pharyngeal insensibility, the central paralysis of the bundles that unite the sensitive ganglia to the motor and sensorial ganglia, the exanthema; and finally, the bromine appears also to slow the heart.

As to the therapeutic action of bromide of potassium, it yet remains obscure. We cannot admit that this salt contracts the blood vessels of the brain, since nothing of the kind is observed in the retina to follow its administration. Bromide of potassium acts probably in a direct manner upon the cerebral muscles.

THE INFLUENCE OF ALCOHOLIC LIQUIDS UPON THÈ ACTION OF TOXIC SUBSTANCES.—Raphael Dubois, *Theśé de Paris*, 1876. (Abst. by A. Richeraud in *Rev. des Sci. Méd.*)

The author passes in review the different groups of toxic substances, and seeks to establish, by clinical observations and experimentations on animals, how the ingestion of alcohol modifies the effects of the poison, and reciprocally.

The following are the principal results arrived at and stated in this thesis:

The effects of alcohol and of ammonia, separately injected into the cellular tissue, do not neutralize each other; nevertheless, in two experiments the convulsions caused by the ammonia appeared to have been diminished by previous intoxication; but in these cases ammonia was incapable of doing away with the effects of the alcohol (four experiments on guinea pigs).

In digitalis poisoning, alcohol always hastened death, and favored the reduction of the temperature, whether given before or after the digitalis, even in the minute dose of two cubic centimetres. Digitalis did not hinder the production of the symptoms of alcoholism, (six experiments on guinea pigs). In man, on the contrary, in cases of delirium tremens, we may administer large doses of tincture of digitalis without inducing the accidents that follow the use of this drug (18 to 20 grammes).

Eleven experiments upon dogs, guinea pigs, and fowls, showed that atropine did not prevent the production of drunkenness; nevertheless, certain manifestations due to atropine have been observed to disappear under the influence of alcohol, but to give place to the symptoms of alcoholism, or to combine with them.

The effects of alcohol and strychnia do not neutralize each other; the special manifestations of the two substances are produced either simultaneously or alternatively; those of strychnia ordinarily predominating, but not effacing those of alcohol. If the economy is saturated with this liquid for a certain time, the accidents appear less rapidly, with less violence, and the death may be put off (15 experiments on different animals).

Alcohol seems to retard the toxic effects of hydrocyanic acid; it diminishes or prevents the convulsions; but when the dose of prussic acid is large, alcohol has not time to act, (18 experiments).

En resumé the reciprocal action of alcohol and of the poison is generally *nul* or very slight, and the physiological effects of the two substances show themselves sometimes simultaneously, sometimes successively.

It is true, nevertheless, that in some cases the action of the poison is less rapid and less energetic, if it is introduced into the stomach or the cellular tissue at the same time with a certain quantity of alcohol.

These researches are doubly interesting; in a therapeutic point of view, alcohol having been considered as an antidote for a large number of poisons; and in a medico-legal point of view, since drunkenness accompanies a certain proportion of criminal or accidental poisoning.

THE TREATMENT OF TETANUS.—Dr. De Renzi, *La Nuova Liguria Medica* (abst. in *La France Médicale*), reports two cases of tetanus observed at the hospital of Panimatone, both treated unsuccessfully by subcutaneous injections of curare.

In the first case the cause of the disease was a fall on the feet from a moderate height. The patient entered the 26th of November, and succumbed the 3d of December.

In the second case the disease was rheumatismal in its origin, a variety much less grave in its nature than the traumatic form. The patient submitted to injections of curare, and died of slow asphyxia three days later. Commenced by giving him the first day 7 grammes of chloral, and then injected 65 milligrammes of curare. The second day the treatment was continued with 5 grammes of chloral and 35 milligrammes of curare. This day the respiration became more precipitate and anxious, and the day following the vital forces were so depressed that it became needful to resort to excitant medicines, such as castorum and turpentine.

In collating these cases with others that have been published, the author concludes that chloral does not justify the hopes to which it has given rise, for the cure of tetanus, and that, on its side, the application of curare in the treatment of this disease does not constitute any real progress.

Dr. Renzi recognized in his patients, and especially in the last, the injurious influence of excitations of any nature whatever, and especially of the excitation produced by light.

The convulsions were less frequent and less intense in the darkness than in full daylight. The punctures made in the hypodermic injections themselves also produced a very injurious effect.

At the autopsy the gray substance of the cord was found rose colored, by reason of an intense hyperæmia.

BLISTERING BEETLES AS A CURE FOR HYDROPHOBIA.—M. de Saulcy, *pere*, laid before a late meeting of the Entomological Society of France, the *debris* of two species of beetles belonging to the meloidæ (*Meloe tuccius* and *Mylabris tenebrosa*), and which had been sent to him from Gabis in Tunis, by M. de Chevarnier, and which constituted the medicine in use by the people of Amerna as a cure for hydrophobia. It is known under the name of *Dernona*, and is mentioned in several Arabian works on medicine. A portion about the weight of a grain of corn is given to the sufferer. The medical formula directs that it should be taken in some meat soup by the person bitten, between the 21st and 27th day after the bite; if taken before or after these dates it will not effect a cure. The natives of Amerna seem to have great faith in this cure, and preserve the dried beetles as a treasure.. It might be worth while to try a series of experiments on the use of vesicating beetles in this terrible malady. But it should not be forgotten that as long ago as 1750, Linnæus, in his dissertation, "De materia medica in Regna Animalis," suggested the employment in such cases of the common blistering beetle, and in 1856, when M. L. Fairmaire laid before the Entomological Society of France a *brochure* by M. Saint Hombourg, on the treatment of hydrophobia by the administration of a species of meloe, many of the members then present, mentioned that this remedy was known for a very long time in Germany. (*Ann. Soc. Ent. de France*) *Nature*, Jan. 18.

ACUTE BROMIZATION.—Dr. Geo. M. Schweig publishes in the *N. Y. Med. Record*, Dec. 30., an interesting communication on the effects of acute bromization. He gives the history of three cases, in which the bromides were used in large doses and for a considerable period, and in which the effects, presumably of these agents, were manifested to a very marked degree. His concluding remarks upon these subjects, leaving out of consideration the points in which his observations agreed with those of other investigators, are as follows:

Cardiac action. Most observers speak of the pulse as becoming "slower and more feeble" while others (Saison, Damourette and Pelvet, Laborde,) deny all influence on the heart. In my first case the pulse became much more frequent and feeble; in the other two it remained unaffected.

Respiration. "The stertor I noticed in case I., I have not seen recorded elsewhere. On the contrary, Clarke speaks of the respiration as without the stertor of opium and alcohol."

"Of the transient abrogation of *hunger* and *thirst*, I have seen nothing mentioned elsewhere.

"The *Conjunctivitis* may have been accidental.

"It is remarkable that no *acne* appeared in any of the cases.

"With respect to the *urine*, my observations are totally at variance with those of all other observers, with the exception perhaps of Rabuteau. In no instance did I find an increase, and in case I., a positive and marked decrease of this excretion. This circumstance would appear to militate against the views of Drs. Amory and E. H. Clarke, of Boston, and Dr. McElroy, of Zanesville, Ohio, 'that the bromides encourage a destructive metamorphosis of tissue.' I am of opinion, rather, that the emaciation accompanying the prolonged bromine influence is due to the retardation of *assimilative* metamorphosis (of food), as shown by Dr. Bartholow, of Cincinnati. Rabuteau claims that there is no change, either quantitive or qualitative in the urinary excretion.

"What I have said under the head of *Sensation* shows (1) the absence of the (true) anæsthesia that is generally considered so uniform an effect of bromization, and (2) the presence of reflex action, the loss of which is insisted on, more especially by Echeverria.

"My observations on *Motion* exclude the 'general paralysis' claimed by many, and introduce a new phenomenon, *viz.*, *temporary loss of co-ordination.*

The Mind. "What I have observed in this connection is nothing new. It appears probable, however, that the temporary insanity accompanying or following acute bromism takes form in accordance with the temperament and disposition of the individual. Thus in an excitable person we should have delirium or mania; in one prone to dejection, simple, or suicidal melancholia; in shallow minded individuals, idiocy, imbecility, or a merely apathetic condition, etc., etc.

"There is one further conclusion at which I think myself justified in arriving, as a result of my observations; it is, that *the effects of the bromides are due, not to the alkali, but the bromine.* A study of the manner in which the bromides were here administered, and of their attendant effects, will, I believe, furnish ample proof in this direction. So far as my individual judgment goes, both the sodium and calcium bromides are superior to potassium for the purpose of obtaining the effects of bromine."

ANEMONIN.—Curci, *Lo Sperimentale*, 1876, XXXVIII., No. 7. (Abstr. in *Centralbl. f. d. med. Wissensch.*)

The author experimented with the so-called anemonin (pulsatilla camphor), or with the watery extract of fresh Anemone pulsatilla (the dried plants are inactive). Both substances were injected subcutaneously, the anemonin dissolved in warm glycerine; in cold it decomposes. Both produced the same general effects on the animals subjected to the experiments (frogs, mice, rats). The animals fell first into a sleepy condition and moved only upon external stimulus. Larger doses about 5 mgms. (=.075 gr.) for a rat, and with longer continuance of the poisoning, the stupor increased, the sensibility of the cornea disappeared entirely, so that it could be touched without inducing reflex movements. Reflex movements could be induced by sufficiently severe sensory irritations of any other part of the body. In the extremities, especially the posterior ones were temporarily in tetanic contraction, the extensors, as it appeared, paralyzed, the frequency of the respiration diminished, while the heart's action remained unaltered until death. Electric irritability of the nerves and muscles retained. Locally, anemonin is an irritant. On rabbits the the experiments apparently failed, on account of the slight solubility of anemonin a sufficient quantity could not be injected. It must also be added that the preparation acted also by vascular dilatation; in frogs, at least, the natatory membrane was strongly injected and reddened.

The author thinks that anemonin acts first on the brain, and in larger doses on part of the medulla oblongata, as is indicated by the altered respiration and the described muscular spasms.

ELECTRO-CAPILLARY CURRENTS AND THEIR INFLUENCE ON THE ORGANISM.—At the session of the Soc. de Biologie, Jan. 27, (rep. in *Gaz. des Hopitaux*) M. Onimus presented a series of minute apparatuses from the laboratory of M. Becquerel serving to show the effects of electro-capillary currents. If two solutions of mineral salts are separated by a capillary space, a cracked glass, for example, there is found between them an electrical current causing double decompositions; on one side of the partitions that of the positive pole, there is oxidation, on the other, that of the negative, there is reduction and a deposition of pure metal. Thus, M. Onimus showed glass tubes in which there was a minute fissure, the interior of which were filled with a metallic salt, nitrite of silver or of copper, or chloride of gold, and then they were plunged into a solution of mono-sulphide of sodium. Through the fissure there was produced an electric current, and the silver, gold, or copper were deposited in beautiful crystallizations.

If we separate these same solutions by an endosmotic membrane the same phenomena take place, on one side of the membrane there is a reduction of the salt and on the other oxidation; we may thus obtain metallization of membrane *en papier a dialyse*, or rather a double decomposition with production of an insoluble substance. Separating by a membrane, nitrate of lime and sulphate of soda, we form on one side nitrate of soda, and on the other stalactites of sulphate of lime. M. Onimus presented some vessels in which were these stalactites, and two sheets of parchment paper completely metallized by a deposit of copper on one side.

The interposition of a membrane is therefore sufficient to make liquids thus in contact an electric pile, and to cause oxidations and double decompositions. If we plunge a plate of platinum into the liquid on one side the intensity of the electric currents is considerably increased, as M. Becquerel has recently noted, and it is on this fact that M. Onimus bases himself to explain the pretended special effects of metallo-therapy

In a physical point of view, these electro-capillary currents have a great importance, because they show the existence of electric currents without the necessity of the intervention of the metallic conductor. They appear even to regulate the laws of endosmose and exosmose, since the direction of endosmosis is nearly always the same as that of the electric current. On the other hand, the application of these laws to physiological phenomena is more considerable; these currents, in fact, are formed in every kind of organic liquid, and they explain to us the formation of electricity in certain fishes, in which the special electric apparatus is constituted by very similar membranous partitions formed of an infinite number of cells filled by an albuminous semi-fluid substance.

M. Onimus has observed that albuminoid substances act in the same manner as the membranes, and that they cause the same electro-molecular action. Separating phosphate of soda and nitrate of lime or chloride of calcium by a layer of albumen, we obtain an electro-capillary current, with the formation of phosphate of lime on the one side, and nitrate of chloride of soda on the other. This experiment exhibits well the phenomena that ought to take place in the formation of osseous tissue.

We may therefore affirm that electric currents exist in all the tissues, the phenomena of endosmosis, the chemical reactions, the double decompositions, which constitute, so to speak, the essence of nutrition, are controlled by these currents. The idea emitted by Scoutetten, that mineral baths act by an electric influence, has certainly some foundation, since we cause an electric current to be formed through the skin between the alkaline or sulpuhrous bath and the tissues beneath the epidermis. But the facts discovered by M. Becquerel do more than prove the existence of these currents, they show us at the same time their results, since the subjacent liquids undergo a reduction, they become de-oxidyzed while in the baths where the reaction is different; in the carbonic acid baths, on the other hand, there is oxidation of the sub-cutaneous substances. The electric currents are more intensified by sulphur baths with the mono-sulphide of sodium or potassium than with the sulphurous preparations usually employed. In the medical use of the metallic salts the phenomena should be as follows: if the salt is taken internally it is reduced and deposited as metal on the internal face of the membrane. This is, in fact, what takes place with nitrate of silver since we find metallic silver under the epidermis. If, on the other hand, the salts are applied externally there is a double decomposition, but the metal will remain deposited on the exterior; this is perhaps the reason that these substances are so little absorbable by the skin. For other compounds, such as the iodide of potassium, the following ought to be the order of the phenomena according to the laws of electro-capillary currents; the iodide of potassium should decompose, the iodide penetrate the epidermis, and the potassium form another combination externally. The acid or alkaline condition of the sweat and of the vesicles which contain the salts, ought also to play an important part in the absorption of the medicine and in the action of the medicine absorbed.

We may still form an idea of the valuable indications furnished by these electro-capillary currents, by the fact that there exists between the white of the egg and the yolk an electric current the direction of which proves that, for the latter, the chemical effects are those of reduction and de-oxidation, while the white disappears by a series of oxidations. In general, in the tissues, that is, in that collection of organic electric piles, where nutrition, and in consequence, life itself, is the result of electro-chemical phenomena, the albuminoid substances take the negative electric condition, and it is on them that the oxidations take place.

METALLOTHERAPIE.—M. Charcot has recently been experimenting, with the aid of M. Burq, on the therapeutic effects of the application of metals to the surface of the body, according to the method employed by the latter, and previously described by him. The patients experimented upon were mostly hysterical anæsthetic cases, and the results of the treatment were rather striking. He reported to the Soc. de Biologie (his remarks printed in the *Gaz. des Hopitaux, Nos.* 8 *et seq.*), that he had apparently induced a return of sensibility in these cases by the application of various metals, gold, copper, etc., the former, however, being the most generally effective. He made also the somewhat remarkable statement that this treatment was also of effect in the organic anæsthesias dependent upon actual cerebral lesions, and that in two of these cases the sensibility thus restored had been even more enduring than in merely hysterical cases. He, therefore, rejected the opinion expressed by Trousseau, that these applications would afford a good means of diagnosis between cases merely hysterical and those due to organic lesions.

In a discussion which followed, M. Onimus held that, all the effects were those of electric currents generated by the metal or the skin. Anæsthesic conditions were very sensitive to electricity, and the fact that gold, one of the metals that in this situation produced the least deviation of the galvano-meter, did not invalidate this statement. The intensity of the current is not indicated by the effect on the needle which is the result of oxidation.

M. Gubler thought that the effects of the electricity generated in this case was not upon the nerves themselves, but upon the capillaries, inducing an afflux of blood, and secondarily restoring the sensibility.

Whatever may be thought of these experiments, it appears to us that there is a great possibility, at least, that mental influence may have its part in the production of these therapeutic effects. It would certainly be of great interest to have further experiments performed upon cases of actual organic disease.

At the session of the Soc. de Biologie, Feb. 3, M. Charcot recalled the subject, and announced that some of the questions raised by it were already solved, one of which is, do we have to do with electrical phenomena here? which he says no one doubts; and another, to determine the intensity of the current produced by a piece of gold applied on the skin, and to find out whether a pile giving the same intensity would produce the same effects. M. Regnard had been experimenting in this direction, and he asked that he have the floor to explain his experiments.

Before ceasing his remarks, however, M. Charcot stated that there were some points still to be cleared up, and alluded to what M. Burq had called the individual idiosyncrasies in regard to metals. Thus some patients, as he had previously stated, were strongly affected by gold, but not by copper, which induced a much stronger current.

M. Regnard said he had begun a series of experiments to decide the following questions: (1). Do electric currents exist in the cases described by M. Burq? (2). In this case will piles, producing currents equally intense, produce the same effects? (3). What is the cause of the difference in the effects produced by gold, copper and iron on different patients? The first question may be answered affirmatively *a priori*. It will suffice to hold a piece of copper in one hand and a piece of iron in the other to form an intense electric current. A piece of gold laid upon the skin and connected with a galvano meter of 30,000 coils, *i. e.*, one of great sensibility, will cause a deviation of the needle some eight or ten divisions, and a piece of copper will produce much more decided effects. Pure gold, or platina, produces a very feeble current, with very little effect on the patient.

M. Regnard then related the experiments he had performed on some of M. Charcot's patients, and with the same results with the use of a galvanic pile as with metallic applications. He thought he could justly answer the two first questions named by M. Charcot, as follows: (1). Yes, there are electric currents; and (2). Yes, graduated currents obtained from any pile whatever produce the same effects. The third query remains—Why is a patient sensitive to gold, representing a certain determinate current, and not to copper representing one much more intense? He hoped to be able to answer this question. In a woman, sensitive to gold, he had observed the following results from the use of graduated currents: A current of 2° (the figure representing the deviation of the galvanometer needle) was without effect; one of 10°, equivalent to that caused by the application of gold, recalled the sensibility; one of 45°, equal to that caused by copper, was ineffective, while one of 90° again produced a return of the sensibility. He, therefore, offered as a hypothesis, that the difference of these effects was due to interference of the currents with sensibility.

In the discussion following, M. Charcot stated that he had found the same results to follow in the case of the special as well as of the general sensibility. In cases of hysterical amblyopia, for example, he had found a notable extension of the visual field to follow the application of the metal for a quarter of an hour.

ERYTHROPHLEINE.—The following are the concluding paragraphs of a paper by M. M. Gallois and Hardy, *Bull. gén. de Thérap.*, Aug. 15, 1876, on the bark of the mancona (*Erythrophleine guineaense*).

En resumé erythrophleine, the extract of mancona bark, is a poison to the heart. Two milligrammes injected under the skin of the paw of a frog, paralyze the heart in the space of five to eight minutes, according to the vigor of the animal. Death is not immediate and when it occurs, the nerves and muscles retain their sensibility to the electric current for several hours, according to the season, while the cardiac muscles remains immobile to the same current. The ventricles are arrested in systole, while the auricles are habitually arrested in diastole.

The poison acts more rapidly and in smaller dose when it is put directly in contact with the heart. Its effect is a little more slow when we suppress the circulation; but the intoxication is nevertheless produced by interstitial absorption. Atropia does not hinder the poisoning; curare delays its effects.

In warm-blooded animals erythrophleine causes convulsive jerkings and violent dyspnœa, following disorders of hœmatosis. Death occurs as soon as the cardiac arrest. At the autopsy the ventricles are commonly found soft and full of blood, and in this latter liquid, we discover the presence of the alkaloid by the aid of re-agents; four milligrammes injected under the skin of a guinea pig have caused death at the end of a few hours; three or four centigrammes hypodermically injected in a dog produce the same result in a longer or shorter time. By the use of graphic apparatuses one is enabled to follow the different phases of the poisoning. Alterations of retardation and accelerations of the pulse are met with. When the pulsations are slowed they possess the greatest fullness; at the later period of the intoxication they are very frequent and weak. But the phenomenon which seems to be most constant, is the augmentation of the arterial tension under the influence of each injection of the toxic alkaloid.

If erythrophleine paralyzes rapidly the cardiac muscle, while the other muscles still preserve for long hours their contractile powers, these latter come none the less under the influence of the agent which should be considered as a poison of the muscular tissue. If the cardiac muscle is the first to die, it is because it receives in a given time a much greater quantity of poisoned blood than the others. The double chloride of erythrophleine and of platina acts as does the alkaloid and causes the arrest of the frog's heart. According to all probabilities, the leaves and grains of *Erythrophleine coumingo* contain an alkaloid, which in its chemical composition is very closely related to, if not identical with, erythrophleine.

It is hard to say just at present whether mancona bark will ever be susceptible to any therapeutic applications. If sternutatories were still employed in medicine it might take its place among them. As to erythrophleine, in giving it in large doses so as to judge of its toxic effects, we have produced serious cardiac disturbances evidenced by sudden alterations of acceleration and retardation of the pulse. If given in very small doses, and during a number of days, it is probable that quite different symptoms would be manifested and possibly it might be assigned a definite position among therapeutic agents.

GALVANISM IN CEREBRASTHENIA.—Dr. G. M. Schweig, *N. Y. Med. Record*, Nov. 4, 1876, recommends as the principal therapeutic measure, besides rest, in cases of cerebral exhaustion or cerebrasthenia, the use of electricity in the form of the electric bath. Both the constant and the faradic currents, he says, are beneficial in this disorder when judiciously applied, and meet all the conditions except that of affording direct nutrition to the brain. For this last, he gives phosphorus and cod liver oil, rejecting most other medication except in cases where there exists great irritability or decided hyperæmia indicating the necessity of special measures to combat these complications.

Inasmuch as the electric bath requires somewhat expensive and complicated appliances for its proper administration, the exclusiveness of Dr. Schweig's method of treatment is to say the least inconvenient to the majority of practitioners who have to deal with this complaint. It may be well to say therefore that less elaborate means have often been found efficient.

THEVETIN.—Theo. Husemann and A. Kœnig *Arch. f. d. Exp, Path.* (Abstr. in *Centralblatt f. d. Med. Wissensch.* No. 40, 1876) gives an account of experiments on the action of a new cardiac poison, a glycoside derived from the fruit of an East Indian plant, *Thevetia nervifolia*, Juss, and which had been called by its discoverer, Blas, Thevetin. Its formula is $C_{54} H_{84} O_{24}$. By boiling with dilute acids it is resolved into glycose and theveresin. Both theveresin and thevetin were found by Blas to be energetic poisons, very similar in their action. Their symptoms were vomiting, diarrhœa, salivation, muscular tremor and weakness, and dyspnœa. With theveresin, the diarrhœa and salivation were lacking.

Husemann and Kœnig's experiments were on frogs and rabbits. In the latter the ptyalism and diarrhœa failed, but there was marked irregularity and retardation of the pulse, and later, severe dyspnœa and gradually increasing paralysis. Death occurred without convulsions, and the heart's action ceased before respiration. The autopsy generally showed the ventricle in systole, but sometimes in diastole. Irritation of the heart was ineffective, but the muscles still responded though less vigorously than usual. The temperature was unaffected. The symptoms agreed throughout with those of digitalis poisoning; thevetin also increased the effect of excitation of the vagus. Atropine had no effect on the action of the drug. At the place of injection it caused inflammatory action. The view of Blas was that thevetin taken into the stomach was dissolved by the gastric juice into theveresin and glucose, the poisonous action being perhaps due to the former, which when separated had the same effect both qualitatively and quantitatively. In the experiments, the results of which are here given, this was not the case, for the hypodermic method of application of the poison was used in all.

BICARBONATE OF POTASH AS A NERVE SEDATIVE.—Dr. J. A. Erskine Stuart, *Brit. Med. Jour.* Dec. 9, 1876, says, that the bicarbonate of potash is a nerve sedative can easily be demonstrated by any one taking a large dose of it, such as a drachm, in water. A peculiar tingling, numbing sensation is soon felt in the lips and cheeks, and afterwards in various parts of the body, extending gradually downwards to the lower limbs. He has used this drug, combined with the bromide of potassium, in epilepsy, with decided effect. That this sedative action on the nerves has a great deal to do with the successful treatment of rheumatism by the bicarbonate, He has not the slightest doubt. As this is a fact, it is desirable, in treating rheumatic fever with this drug, to give it in sufficiently large doses, such as a drachm dissolved in water, every few hours. That some cases are best treated by means of alkalies there can be no doubt. Others, however, and especially those where there is great hyperpyrexia, are better under the salicine or salicylic acid treatment.

CAUTERIZATION OF THE PHARYNGEAL MUCOUS MEMBRANE IN NEUROSES OF THE HEAD.—The following are the conclusions of a paper read by M. Bitot, professor at the medical school at Bordeaux, before the Soc. de Biologie, Oct. 31, and reported in the *Gaz des Hopitaux* No. 128, 1876.

1. The head is the seat of certain nervous disorders, the exact localization of which is not precisely determined.
2. The cranial portion of the sympathetic has its part in their pathology.
3. In such cases it is natural to suppose that the superior cervical ganglion, which forms the principal centre for the cranial sympathetic, is the point of departure for the trouble.
4. The anatomo-physiological importance of this real brain of the vegetative life of the head should be considered by the observer, when ever he has to deal with a neurosis of this part.
5. He should keep it specially in view when the neurosis is rebellious to ordinary means of cure.
6. The relations of this ganglion to the pharyngeal mucous menbrane, make of this latter a point of election for acting upon it and its more distant appendages with certain irritants.
7. Painting this mucous membrane with tincture of iodine, has afforded remarkable results in functional nervous disorders. It has been found ineffectual in the disorders consecutive to apoplectic attacks.
8. In many cases complicated with amnesia, the memory has recovered its former vigor after this treatment.

This method of treatment, we understand, is a revival of that proposed many years since by Dr. Ducrot, of Marseilles, and which has not been practiced since 1849 or 1850.

The following are a few of the articles that have recently appeared on the Therapeutics of the Nervous System and Mind:

Gamgee, On the Curative Effects of Mild and Continued Counter-Irritation of the Back, in cases of General Nervous Debility, and in certain cases of Spinal Irritation, *Practitioner*, February; Ringer, Case of Acute Mania Treated with Large Doses of Hyoscyamia, Daturine Atropia, and Ethyl-Atropia, *Ibid*, March; Bridges, Two Cases of Violent Chorea, illustrating the Administration of Chloral Hydrate in large Doses, *Ibid;* Bartholow, Clinical Remarks on a New Combination of Anodyne and Hypnotic Remedies, *Clinic*, June 27; Wood, On the Action of Drugs upon the Motor System of Animals, *Phil. Med. Times*, January 20; Skerritt, Croton-Chloral in Neuralgia, *Lancet*, February; Gray and Tuckwell, On the Expectant Treatment of Chorea, *Ibid;* Dujardin-Beaumetz, On Hypodermic Injections of Chlorate of Pilocarpine, *Bull. Gr. de Therap.* March 15; Maximowitsch, The Therapeutic Usage of Amyl Nitrite, *St. Petersburger Med. Wochenschr*, March 12 (24); On the Physiological Action of Haschisch, *Med. Westnik*, No 3, (Abst. in *StPetersb. Med. Wochenschr*.